

## METHODS OF TREATING BLADDER DISORDERS

### Abstract of the Invention

5           Methods of treating bladder disorders, including bladder cancer and inflammatory bladder diseases such as interstitial cystitis are disclosed. The methods include identifying a mammal that has or is at risk for having a bladder disorder and administering isolated nucleic acid sequences to the mammal. Nucleic acids used in the methods of the invention contain unmethylated CpG sequences, which are thought to modulate the immune response. Also included are methods that use nucleic acids encoding alpha-MSH. The nucleic acid sequences may be administered individually or together or can be included in the same nucleic acid.

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